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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/569,029

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Luigi Ravarini

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05/11/2009

ROBERT W. BECKER & ASSOCIATES

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SUITE B

TIJERAS, NM 87059-7507

EXAMINER

EVANS, GEOFFREY S

ART UNIT

PAPER NUMBER

3742

MAIL DATE

DELIVERY MODE

05/11/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/569,029

Applicant(s)

RAVARINI, LUIGI

Examiner

Geoffrey S. Evans

Art Unit

3742

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 February 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 7-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SG/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 7- 9 and 10-12 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. In claim 7 there is no support in the original specification for the manner of preventing the vertical rods from being heated. Since the vertical rods support the heating element there must be at least some heating by thermal conduction since no thermal insulator is disclosed in the specification for preventing thermal conduction. Regarding claims 10-12, how the thermal sensors cooperate to control the temperature at the melting point and then the maintenance temperature is not disclosed. It is unclear whether for example a timer is used, a computer, or if the first thermostat only works once. Please note that no figure showing a circuit with the thermal sensors and the heating element has been provided to show the proper cooperation of the elements.
2. Claims 7-9 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The cooperation between the thermal sensors in claim 7 is unclear in the language of the claim.
3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the junction spokes recited in claims 7 and 10 must be shown or the feature(s) canceled from the claim(s). Furthermore the vertical rods must also be shown (the figures only show a single

vertical rod). Furthermore elements 5 and 7 should be labeled as "thermal sensor" in figures 1a and 1b to facilitate understanding of the invention. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Skonberg in U.S. Patent No. 3,282,469 in view of Wilson in U.S. Patent No. 7,211,770 and Harris in U.S. Patent No. 2,560,795. Skonberg has an apparatus for heating and melting solid lubricants in a drum (element 11) comprising a heating element composed of a resistor (36) that is embedded and hence considered "armored", a hoist (elements 13,14,16,17,18,22) adapted to raise and lower the heating element into and out of a drum (element 11), a transfer pump (element 26), a bottom inlet (element 27) and a delivery tube (element 28) coupled to the outlet side of the pump. The structure used by Skonberg to hoist the heating element is considered to be functionally equivalent to using vertical rods to raise and lower the heating element in and out of the drum. Wilson teaches using heating elements made of concentric rings (see column 8, lines 23-26, this embodiment is not shown in the drawings), the heating elements having junction spokes to supply power to the resistors and using two temperature sensors, one to cut power when the heat transfer from the workpiece reaches a predetermined level and a safety back up thermostat (see column 8, lines 43-50). The determination of the proper placement of the temperature sensors is within the level of skill in the art in the absence of evidence of unexpected results. Harris teaches using a valve (element 43) to control the flow of lubrication (see column 3, lines 25-30). It would have been obvious to adapt Skonberg in view of Wilson and Harris to provide concentric rings as the shape of the heating element as a matter of common sense to efficiently heat solid lubricant in a drum, to use a first thermostat to melt the lubricant and a second thermostat as a safety thermostat to prevent overheating of the lubricant and to provide a valve to control the

output of the lubricant from the drum. Regarding claim 8, the apparatus for moving the heating element (vertical rods, components of the hoist, transfer pump and suction tube) effect the force of gravity on the heating element.

6. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Skonberg in view of Wilson and Harris as applied to claim 7 above, and further in view of Sedran in U.S. Patent No. 4,534,493. Sedran teach flowing a diathermic fluid (hot oil) to raise the temperature of a solid. It would have been obvious to adapt Skonberg in view of Wilson, Harris and Sedran to provide this to provide heating of the delivery tube with the flowing fluid to prevent resolidification of the lubricant.

7. Applicant's arguments filed 10 February 2009 have been fully considered but they are not persuasive. Regarding the rejection of claim 7 for lack of enablement, the mere fact that the specification states that on page 3, second paragraph that the vertical rods are not heated is not sufficient to overcome the rejection under 35 USC 112, first paragraph for lack of enablement. Since the vertical rods physically contact the heating element there must be some heating by conduction. Please note that the instant application discloses no description of a thermal insulator or thermal insulation barrier to prevent this heat flow by thermal conduction. Regarding the rejection under 37 CFR 112, second paragraph, Applicant has not invoked 112 sixth paragraph to import functionality of the manner of use of the thermal sensors. The cooperation of the elements of the claim must be clear. Only a single thermal sensor can control the heating element at a time; therefor the cooperation between the thermal sensors must be stated in the claim itself. Regarding the art rejection of claims 7-9, Applicant argues

that Skonberg is a "rigid stationary assembly". However claim 7 does not contain any limitation directed to rigidity. It is improper to import claim limitations from the specification. See MPEP Section 2111.01 II. The embedding of Skonberg protects the heating element and so is considered "armor". Even if Skonberg did not have armor, Wilson discloses an outer steel tube (element 29) around the heating element that can be considered to be "armor" (see column 7, lines 5 and 6). Regarding the rejection of claim 9, Sedran is only being used to teach flowing a diathermic fluid to raise the temperature of the solid and not for its entire apparatus.

8. Claims 10-12 are considered allowable over the prior art of record but are rejected under 35 USC 112, first paragraph in paragraph 1 above.

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Liddell et al. in U.S. Patent No. 2,436,722 in figure 3 discloses heating elements (18) that are concentric with one another in a grease dispensing apparatus. Becker et al. in U.S. Patent No. 5,431,826 discloses a temperature sensor for keeping grease at a temperature between 115-120 degrees Fahrenheit (see column 5, lines 3-14).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey S. Evans whose telephone number is (571)-272-1174. The examiner can normally be reached on Mon-Fri 7:30AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tu Hoang can be reached on (571)-272-4780. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey S Evans/

Primary Examiner, Art Unit 3742